

USER MANUAL

LEATT
STX

! WARNING

Motor Sports and racing can be dangerous. Participation in these activities can result in severe brain, head and neck injuries which may result in paralysis or death. Although the Leatt-Brace[®] is designed to help reduce the risk of such injuries, there is no guarantee that any injury will be prevented by the use of this or any other safety equipment. Read all instructions prior to use. Before putting on your Leatt-Brace[®] each time, please review and comply with the following cautions and instructions below.

- ! The Leatt-Brace[®] cannot protect against all possible impacts and/or injuries. Although the Leatt-Brace[®] is designed to help reduce the risk of such injuries, there is no guarantee that any injury will be prevented by the use of this equipment. Perform any motor sport activity with caution and use/wear appropriate safety equipment.
- ! For maximum performance, the Leatt-Brace[®] must be properly fitted and attached according to the instructions in the user manual. It is recommended that this product be used only in conjunction with a helmet with a permanent fixed chin part (e.g full-face helmet, motocross helmet, DO NOT USE WITH A JET HELMET). Use at your own risk.
- ! For maximum performance, the Leatt-Brace[®] must be inspected prior to each use. **STOP** using the Leatt-Brace[®] if any components show signs of damage or are worn, cracked, and/or deformed, or if the inside padding is deteriorated. **Leatt[®] Corporation recommends that the Leatt-Brace[®] be replaced every two (2) years under normal racing conditions.**
- ! Should you experience a collision or if the Leatt-Brace[®] or any component shows any signs of damage, cracking, deformity and/or the inside padding is deteriorating, return the Leatt-Brace[®] to the seller for inspection or destroy and replace the Leatt-Brace[®].
- ! Common substances applied to this brace (solvent, cleaners, hair tonics, etc.) can cause damage that may be invisible to the user and compromise the effectiveness/safety of the Leatt-Brace[®]. Wash only with gentle soap or detergent in cold water, rinse in cold water and dry with a soft cloth.
- ! The brace has been tested using various static and dynamic tests, but has not been tested on riders under race conditions for instrumented impact assessment; this product is of a new design.
- ! The brace has been tested on a wide range of users and vehicle types and should fit you and your vehicle, if not, minor adjustments may be required for proper fit. Failure to properly adjust the brace before use may compromise rider safety and brace effectiveness.
- ! Always attach your helmet correctly according to seller's guidelines. Ensure that all of your safety equipment has not passed beyond its recommended life span. Travel/race with safety as your primary principle.

WARRANTY DISCLAIMER

YOUR LEATT-BRACE[®] IS WARRANTED TO BE FREE OF DEFECTS IN MATERIALS AND MANUFACTURING FOR ONE YEAR FROM THE DATE OF PURCHASE. CRASH DAMAGE, NEGLIGENCE, ABUSE OR ALTERATION OF YOUR BRACE IS NOT COVERED UNDER THIS WARRANTY. SEVERAL PARTS OF THE LEATT-BRACE ARE DESIGNED TO FRACTURE AS THEY HELP PROTECT YOU IN CERTAIN RIDING SCENARIOS. THESE PARTS ARE REPLACEABLE AND OFFERED FOR SALE. IF YOU BELIEVE YOU HAVE A WARRANTY CLAIM TAKE, THE BRACE BACK TO THE RETAILER YOU BOUGHT IT FROM.

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Leatt-Brace[®] STX

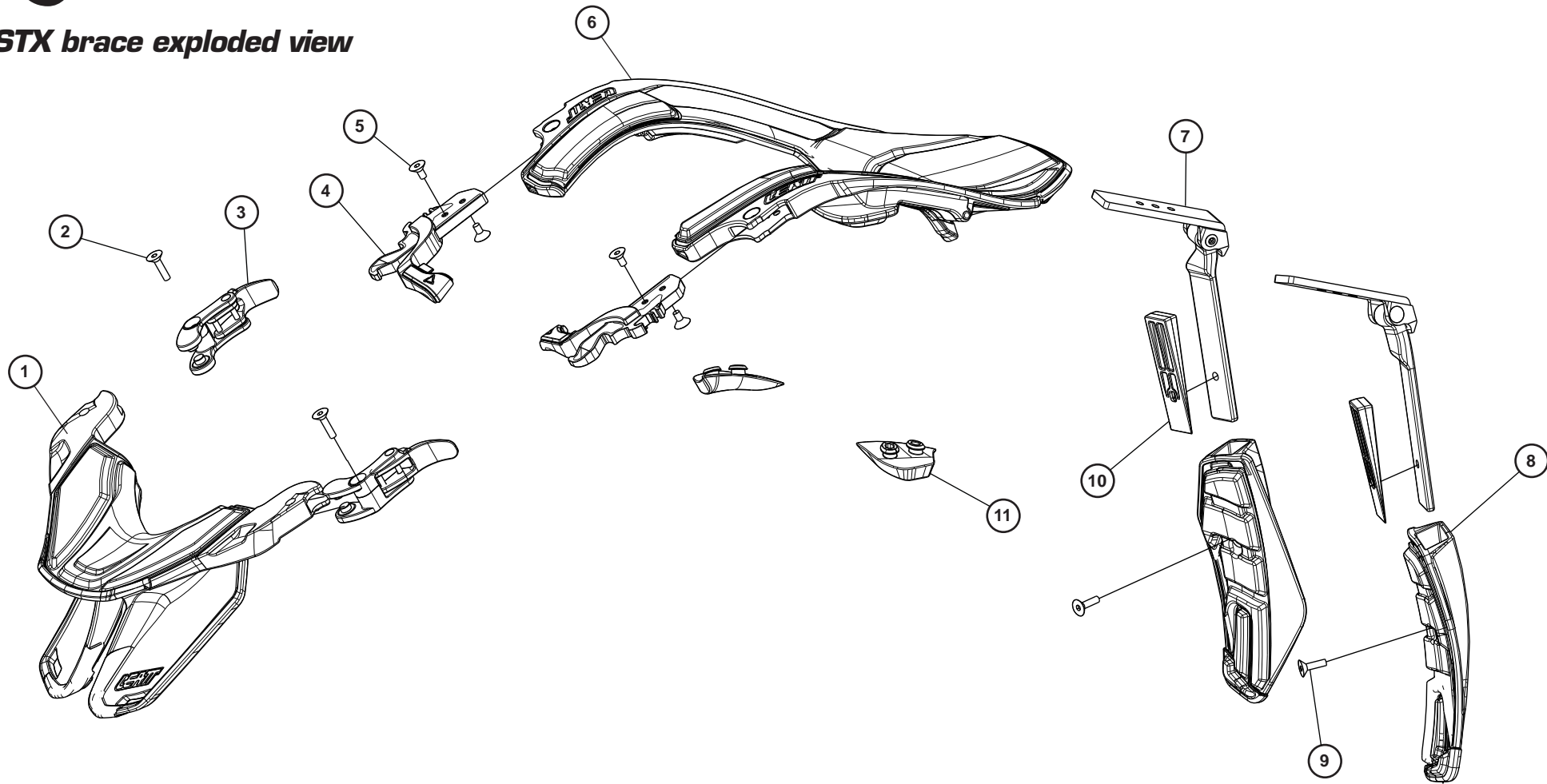
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STX brace exploded view



Parts/Components List	QTY		QTY
1 - STX Front Assembly	1	7 - Upper scapula wing	2
2 - CSCS M4 16mm	2	8 - Lower scapula wing	2
3 - Hinge Lever Assembly	2	9 - CSCS M4 14mm	2
4 - STX 10mm Pin	2	10 - STX Sizing Wedge	2
5 - CSCS M4 8mm	4	11 - STX Back Lower Shoulder	2
6 - STX Back Assembly	1		





User manual introduction

Welcome to the world of Leatt® and thank you for choosing our product. The Leatt-Brace® you have purchased is based on years of academic research and extensive evaluation of the mechanisms of head and neck injuries, together with testing in test facilities and via simulation software. The brace has been tested using various static and dynamic tests. The Leatt-Brace® is part of the protective equipment ensemble available for use by participants in cycle and motor sports activities.

The design rationale behind the Leatt-Brace® is to help bring the head to a controlled stop during an accident/fall. This is achieved by providing a padded rigid structure that helps act as an alternative load path for neck forces. Helmet impacts otherwise transmitted from the helmet to skull and then to the neck are re-directed from the helmet to the brace and then to other body structures. The design of the Leatt-Brace® helps prevent the helmet/head from projecting over the brace and therefore helps prevent a fulcrum action which has been documented in literature pertaining to the use of collar devices. The Leatt-Brace® may be worn with most types of motor sport body armor and chest protectors. Over long distances, the Leatt-Brace® will also offer some relief from neck fatigue.

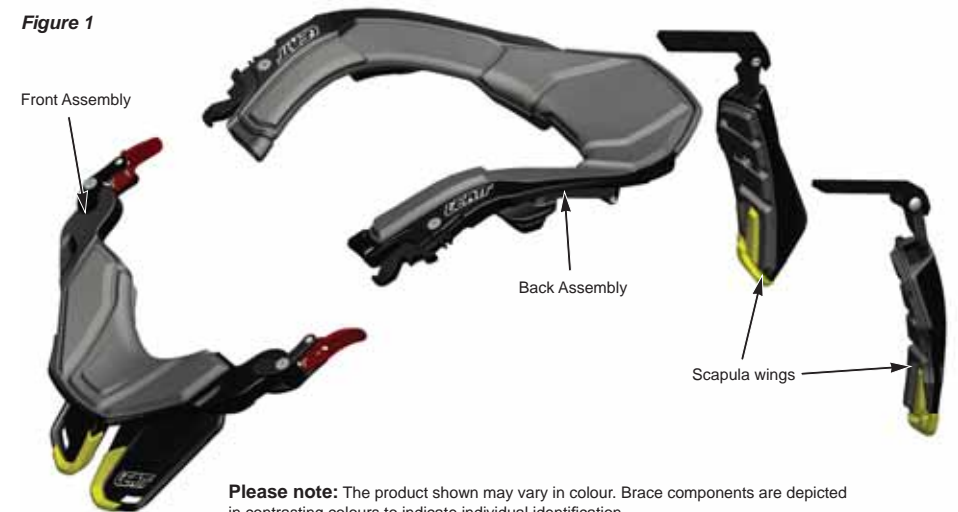
The Leatt® STX neck brace system helps prevent the following extreme movements:

- head, forward – HyperFlexion
- head, rearward – HyperExtension
- head, sideways – Lateral HyperFlexion
- head/helmet, rearward on the neck – Posterior HyperTranslation
- coupled axial loading – Helps prevent axial loading only when the axial forces act in combination with other mechanisms.

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The Leatt® STX Brace (*Figure 1*) has been designed to be set up in stages to suit your requirements. Please follow the fitment process carefully. It should take you about 20 minutes to complete.

Figure 1





Leatt-Brace® sizing chart

The size of the brace should be correct for your body shape and allows for adjustability to ensure correct fitment and comfort, no matter what your application is.

When correctly adjusted and worn with your helmet, the Leatt-Brace® should allow for a full safe range of a rider's head and neck movements (i.e. looking up, looking down and looking side-to-side, such as when performing an over-the-shoulder check); **the Leatt-Brace® and the helmet must come into contact with each other as the full safe range of normal riding head movement is reached.**

If any resistance or discomfort is experienced when attempting to complete the full range of head and neck movements, or if the brace does not make contact with the helmet when the full range of movement is reached, further adjustment, or an alternative size of Leatt-Brace® may be required.

In extreme circumstances, it may be necessary to purchase an alternative model of helmet in order to achieve the required level of compatibility and safety.

Please ask the retailer or contact Leatt® if you require further advice on sizing, adjustment or fitting.

Please use the sizing chart below to ensure that you have purchased the correct size Leatt-Brace®. The sizing chart is based on your height and chest circumference right below the arms therefore make sure that you take the correct measurements before utilizing the chart on next page.



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Sizing Chart

Size Range

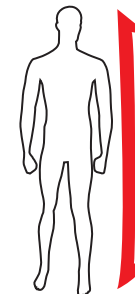
S/M: to fit wearer height: 97.5 – 183 cm

L/XL: to fit wearer height: 156 cm - 190 cm

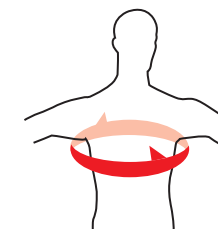
XXL: to fit wearer height: 167 cm +

		Chest circumference						
		inches	21.6 - 33.5	33.9 - 35	35.4 - 37	37.4 - 43.3	43.7 - 45.3	45.7 - 47.6
Height		cm	55 - 85	86 - 89	90 - 94	95 - 110	111 - 115	116 - 121
3'6" - 4'7"	106 - 139		S/M					
4'7" - 5'1"	140 - 155		S/M	S/M				
5'1" - 5'4"	156 - 163		S/M	S/M	L/XL			
5'4" - 5'5"	164 - 166		S/M	S/M	L/XL	L/XL		
5'6" - 5'7"	167 - 169		S/M	S/M	L/XL	L/XL	XXL	
5'7" - 5'8"	170 - 172		S/M	S/M	L/XL	L/XL	XXL	XXL
5'8" - 5'9"	173 - 175		S/M	S/M	L/XL	L/XL	XXL	XXL
5'9" - 5'10"	176 - 178		S/M	S/M	L/XL	L/XL	XXL	XXL
5'10" - 5'11"	179 - 181		S/M	S/M	L/XL	L/XL	XXL	XXL
5'11" - 6'	181 - 183			S/M	L/XL	L/XL	XXL	XXL
6' - 6'1"	183 - 185				L/XL	L/XL	XXL	XXL
6'1" - 6'3"	185 - 190					L/XL	XXL	XXL
6'3" - 6'4"	191 - 195						XXL	XXL
6'4" - 6'6"	196 - 200							XXL

ft cm



* Height



* Chest circumference right below the arms



Leatt-Brace[®] fitment - Step 1

The brace has been fitted on a wide range of users and Motorcycle types and should fit you. If not, minor adjustments may be required for proper fit. Failure to properly adjust the brace before use may compromise rider safety and brace effectiveness. When correctly-adjusted and worn with the user's safety helmet, the Leatt-Brace[®] should allow the full range of normal head and neck movements (i.e. looking up, looking down and looking side-to-side, such as when performing an over-the-shoulder check); the Leatt-Brace[®] and the helmet only coming into contact with each other as the full range of normal movement is reached.

Your STX brace is supplied with three pairs of different sized Pins for adjustment. The Medium Pin is fitted as standard. Start by fitting your brace without the scapula wings attached on your shoulders and chest as shown below in *Figure 2*.

Figure 2



Adjustment with Pins

If the brace is too loose around your neck with the fitted Medium Pin and does not sit comfortably on your shoulders and chest, fit the Short Pin (see *Figure 3*). If the brace is too short and therefore too tight, simply fit the Long Pin and if still tight use the Extra Long Pin.

Figure 3: Pin sizes



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Fitting the Pins

Unscrew the 2 Buttonhead Cap Screws (see *Figure 4a*) with the supplied Allen key. Slide the Pin out once the Cap Screws are removed (see *Figure 4b*) and replace by sliding the desired Pin back in the same way. Now screw in the 2 Buttonhead Cap Screws with its washers in place to secure the newly fitted Pin.

Figure 4a:



Figure 4b:





Step 2 - the Scapula wings

The Scapula wings has two parts, the lower scapula wing (Figure 5) and the upper scapula wing (Figure 5). Each one has his own points of configuration and through a combination of the configurations the right fit is aquired.

We recommend that you start with the lower scapula wings angled at 10 degrees. This is the most commonly used strut angle for average sized riders.

Lower Scapula wings

To configure the lower scapula wing you have to remove the fitment screw. Than you remove the upper scapula wing and the sizing wedge. Refit the upper scapula wing and the sizing wedge to get your preferred gradient combination (Figure 6)

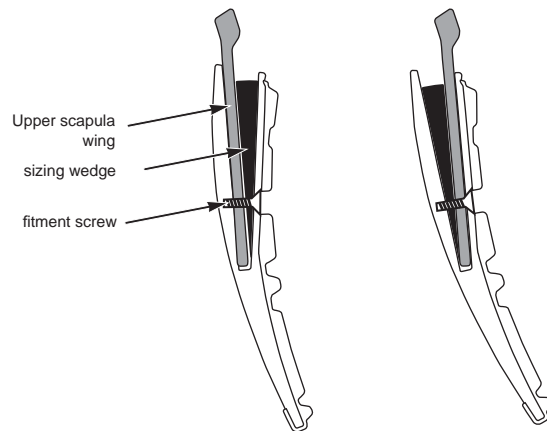


Figure 5

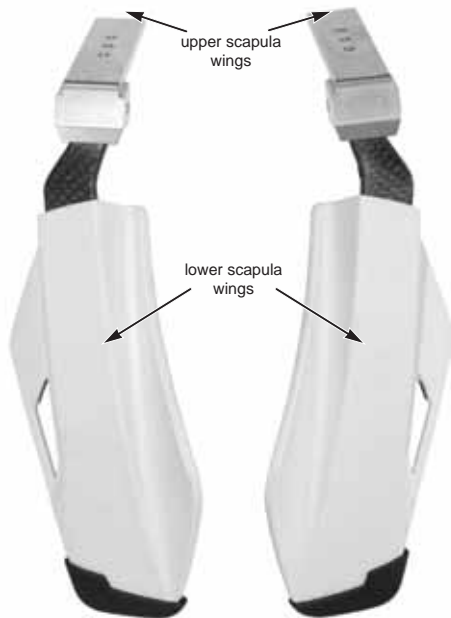


Figure 6

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Upper Scapula Wings

To configure the upper scapula wings you must release the strut clip. When the strut clip is released you can slide the upper scapula wings in you favourable position. (Figure 7)

Because of the design of the scapula wings the strut can be bent in for easier storage. (Figure 8)

Figure 7

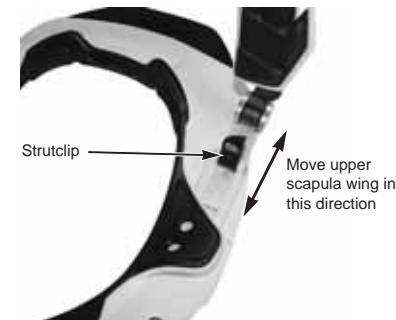


Figure 8



Opening and closing the Leatt-Brace®

The Leatt-Brace® can be opened from the left or right (Figure 9a), or the front assembly can be completely removed (Figure 9b).

Figure 9a



Figure 9b





STX shoulder height adjustment

The shoulder height on the STX brace can easily be adjusted by removing the STX Back Lower Shoulder (see *Figure 10a*) by holding the side and lifting it away from the brace. (*Figure 10b*).

Figure 10a



Figure 10b



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STX adjustable body straps

The STX brace's body straps can be easily attached to the brace. Unlock the strap buttons of the fixed strap and pull the ends through the strap inlets on the front assembly, when through bend the end over to reconnect with the buttons and then lock the buttons (*Figure 11a*). Repeat the action with the stretch strap on the scapula the same side of the brace (*Figure 11b*). After the two straps are attached to either sides of the STX brace, the straps can be worn under the arms by releasing the clips, leading the stretch strap from the scapula wing under the adjacent arm to the fixed strap and then closing the clips. The straps can be adjusted pulling and releasing the stretch strap through the clip loop.

Figure 11a



Figure 11b





Fitting the STX brace with a Riding Jacket

The STX Brace can be worn very comfortably and unobtrusively with a Riding Jacket. When wearing a Riding Jacket with the brace, ensure that the brace rests comfortably over the front of the jacket. (see Figure 10).

At the back of the jacket the scapula wings should be worn on the outside.

Refer to Step 1 to adjust the fit and comfort of your brace on the chest and back.

Figure 10



Fitting the STX brace with a racing suite

The STX brace can be worn very comfortably and unobtrusively over a one or two piece leather suit with racing hump. As with the riding jacket make sure that the front of the brace fits comfortably over the front of the suit.

At the back of the suit the Scapula wings should fit to the outside of the racing hump. (see Figure 11)

Refer to step 1 to adjust the fit of the front and the back of the brace.

Figure 11



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Looking after your Leatt-Brace®

You may want to wash your Leatt-Brace® after hard riding. The brace and integrated padding should only be washed with a gentle soap or detergent in cold water, rinsed in cold water and dried with a cloth only. Common substances applied to this brace (solvent, cleaners, hair tonics, etc.) can cause damage that may be invisible to the user and compromise the effectiveness/safety of the Leatt-Brace®. Always refer to the material content label on the Leatt-Brace®. None of the materials used are known to contain anything that might cause an allergic reaction or be dangerous to your health.

When storing your Leatt-Brace®, place it on a clean, dry surface and store in a dry, well-ventilated environment away from direct sunlight and extremes of temperature. Do not place heavy objects on top of the Leatt-Brace®.

For maximum performance the Leatt-Brace® must be inspected prior to each use. Stop using the Leatt-Brace® if any of its components, including but not limited to, the Front Component, Hinge Lever Assembly, Pins, Strut, Nylon Washers and/or the Back Component (See Parts/Components List on page 3) are worn, cracked and/or deformed, or if the inside padding is deteriorated.

